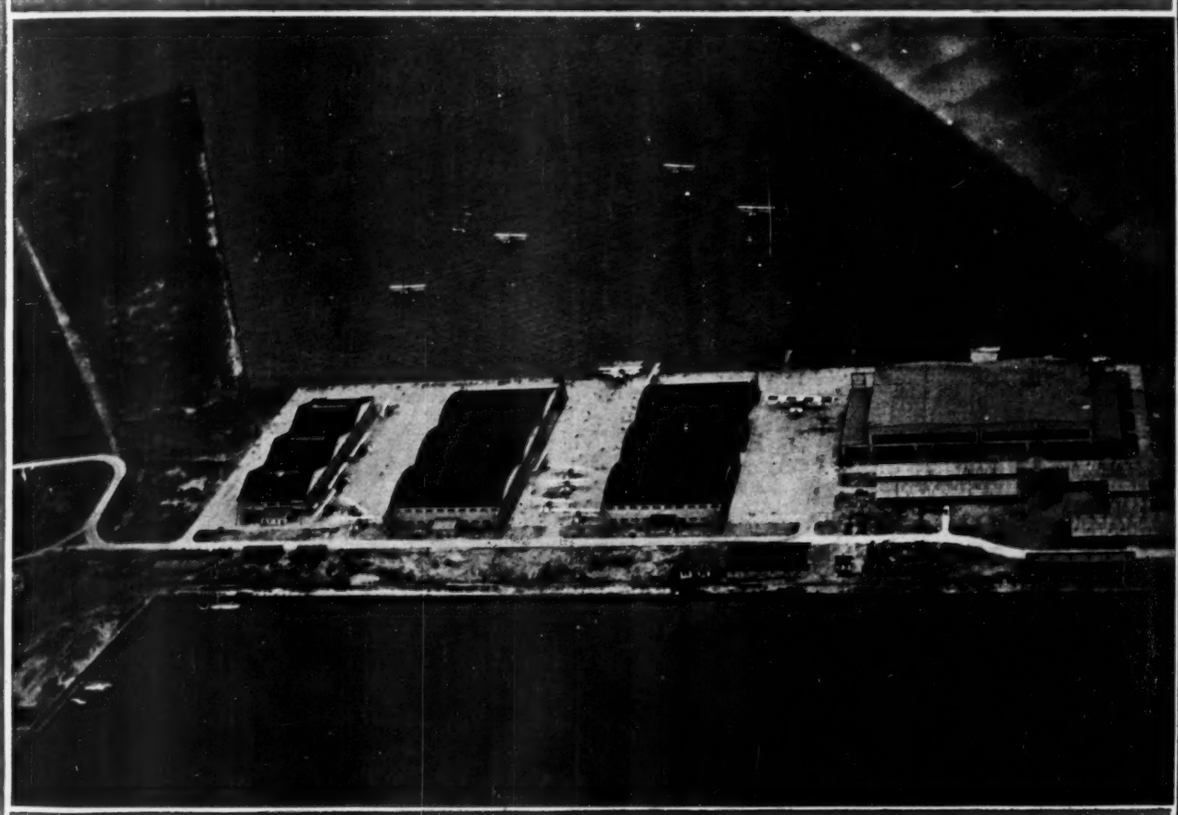
AVIATION

JANUARY 15, 1923 Issued Weekly PRICE 10 CENTS



Hampton Roads naval air station, the Navy's chief aerial base on the Atlantic coast

VOLUME XIV

Number 3

SPECIAL FEATURES

COMPLETE LIST OF AMERICAN AIRPORTS

WINTER SCHEDULE OF AIR MAIL SERVICE

NATIONAL AERONAUTIC ASSOCIATION BULLETIN

CIVIL AERONAUTICS ACT OF 1923 INTRODUCED

THE GARDNER, MOFFAT CO., INC.
HIGHLAND, N. Y.
225 FOURTH AVENUE, NEW YORK

Entered as Second-Class Matter, Nov. 22, 1920, at the Post Office at Highland, N. Y. under Act of March 3, 1879.

Dayton Wright "Chummy"

Taught to Fly in Record Time

ON the morning of September 22, 1922, Kenneth M. Lane of Dayton, who had never previously touched the controls of an airplane, took his first instruction flight with Walter E. Lees.

That same afternoon, after only four hours instruction, Lees stepped out of the machine and Lane flew solo, executing all the maneuvers required in ordinary flight in very creditable style.

This unprecedented feat was rendered possible and safe by reason of the extraordinary attributes of the type airplane used. Years of painstaking study and research have resulted, thru the perfection of the Dayton Wright "Chummy", in the production of an airplane so stable and so easy to fly that it is safe in the hands of any amateur sportsman. The ship really flies itself with hands off all controls. It is proof from "spins" -- by far the greatest individual cause of serious accidents.

DAYTON WRIGHT COMPANY

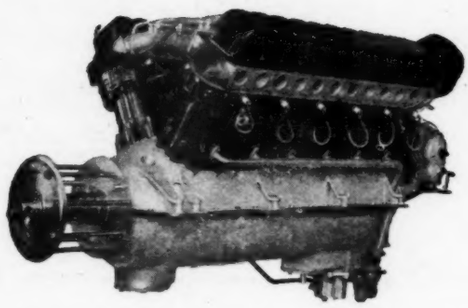
DAYTON, OHIO

"The Birthplace of the Airplane"

SIMPLICITY **STRENGTH** **SAFETY**

Curtiss

WATCH ITS PERFORMANCE EVERYWHERE



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Holds the World's Records for Speed and for Altitude (without supercharger)

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Naval Aircraft Factory
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Fokker Company
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Reliability, Economy, Light Weight, Small Frontal Area and Freedom from Vibration make this motor the inevitable choice of leading Aeronautical Engineers for their High Performance Planes.

THE CURTISS AEROPLANE AND MOTOR CORPORATION
GARDEN CITY, NEW YORK

J-u-st a minute !!

THE War Department has a brief message you'll want to get. It's about an auction to be held at Fairfield, O., January 24.

Fairfield is a suburb of Dayton, you know, and was one of the biggest of the wartime aviation centers.

Well, on the twenty-fourth of January, the War Department is going to sell—at Fairfield—some of the things it don't need.

You'll be surprised when you know what a big family they are.

There's steel and grinding wheels, tachometers and gauges, altimeters and scrap brass, machine tools and drawing boards, all kinds of parts of airplanes and—

But, the War Department has stood them all in line, counted noses, written down their names and printed the full details in a neat little catalog.

That catalog will tell you the whole story and whisper a message of profits, too, any time you're ready to listen. It's free. Write the Commanding Officer, Fairfield Air Intermediate Depot, Fairfield, O.

The Government reserves the right to reject any or all bids.

WAR DEPARTMENT

JANUARY 15, 1923

AVIATION

VOL. XIV. NO. 3

Member of the Audit Bureau of Circulations

CONTENTS

Editorials	67	Civil Aeronautics Act of 1923	77
Airports in the United States and Possessions	68	7 hr. Gliding Record	77
Winter Schedule of Air Mail Service	73	New Records in View	78
Air Mail Service in the Mediterranean	76	Japanese Air Appropriations	78
Air Mail Service in Spain	76	National Aeronautic Association Bulletin	79
Aerial Exploration Work	76	Army and Navy Air News	80

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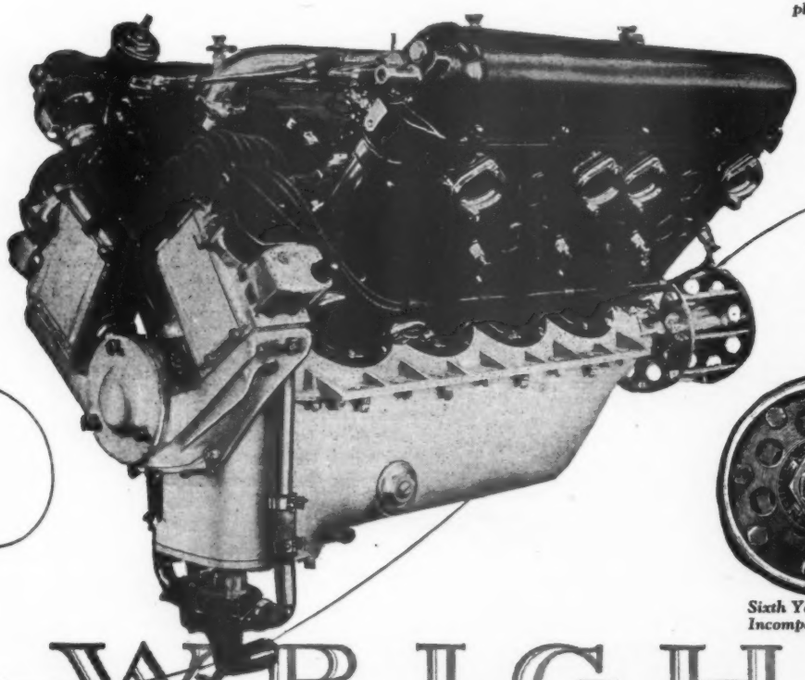
The accomplishments of our engineering and production organizations have measured up to the original Wright achievement—the very art of flying.

WRIGHT AERONAUTICAL CORPORATION
PATERSON, NEW JERSEY, U. S. A.

Wright Model E-3—200 Horsepower 8-Cylinder Engine. Advanced training and alert planes in U. S. Navy service



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AVIATION

LADISLAS D'ORCY, EDITOR
VIRGINIUS E. CLARK
EDWARD P. WARNER
RALPH H. UPSON, CONTRIBUTING EDITORS

Vol. XIV JANUARY 15, 1923 No. 3

A Helpful Sign

FEDERAL Air Regulation has been advocated in this country by every organization, governmental as well as civilian, that is directly concerned with aeronautical activities. Outside of these bodies, excepting as notable examples the American Legion, the American Bar Association and the Chamber of Commerce of the United States, the question of federal air legislation has elicited little enough interest.

It is therefore particularly gratifying to see an influential body like the Merchants Association of New York publicly go on record as favoring the enactment of federal air laws to encourage civil aeronautics. At a recent meeting of its Board of Directors the Association adopted the following resolution:

"Believing that the development of aeronautics requires a prompt definition of the laws of the air as applied to aviation for all purposes, your Committee on Aeronautics presents for your consideration and recommends the adoption of the following preambles and resolution:

"Whereas, The Committee on Aeronautics of The Merchants' Association of New York has learned with satisfaction that under the direction of the Secretary of Commerce, the Hon. Samuel E. Winslow, Chairman of the House Committee on Interstate and Foreign Commerce, is making a very thorough and competent study of the need for basic Federal legislation, establishing authority for the encouragement, development, and control of civilian aeronautics; and

"Whereas, Your Committee is impressed with the great need for the early enactment of such legislation; now therefore, be it,

"Resolved, That the Board of Directors of The Merchants' Association of New York transmit to the Secretary of Commerce and to Congressman Winslow an earnest expression of their opinion regarding the need of legislation providing for national control and adequate encouragement of commercial aviation as an important factor in our national defense."

Secretary Hoover and Aviation

IT would have been a real setback to civil aeronautics, had Secretary Hoover left the Department of Commerce, as was intimated, and become Secretary of the Department of the Interior. His concern with the drafting of the Civil Aeronautics Act of 1923, which Representative Winslow introduced in Congress, has been so direct that to have had to introduce a new personality at this time might have constituted another obstacle to the progress of this all-important measure.

As it appears to be the well-nigh unanimous opinion that civil aeronautics should be regulated and supervised by the Department of Commerce, it will be a great advantage to have a Secretary who has had a large share in the framing of the basic legislation. That Secretary Hoover has given serious study to this problem is known by all who have followed the progress of the drafting of the Civil Aeronautics Act. He has put at the disposal of the drafting officials of the House the full cooperation of his department.

Representative Winslow, in whose charge the Bill has been, has very wisely accepted suggestions made by the Secretary's office, with the result that a Bill has been drawn which will give civil aeronautics a real charter of independence.

The Japanese Air Appropriations

THE news item reproduced in this issue from a French contemporary that the Japanese budget for the present fiscal year includes an appropriation for military and naval aeronautics of approximately $21,000,000 is highly significant. The fact that this appropriation is 76 per cent of the total appropriation for the United States Army and Navy Services ($27,661,450.00) for the current fiscal year is important in itself, for it shows that the Empire of the Rising Sun has fully grasped the value of Air Power. What increases the value of this demonstration is that the Japanese naval air appropriation included in this sum is $16,000,000 as against $14,800,000 for the United States Navy.

As the naval ratio of Japan is under the Washington treaty 60 per cent of the American naval strength, it may be seen that Japan is spending money on her naval air force far in excess of her allotted ratio of naval strength, aiming in that service evidently at parity with that of the American Navy. This is a development which should be watched with sustained interest.

The Seven Hour Gliding Record

INFORMATION on the seven hour gliding record made by the French pilot Thoret is too incomplete to permit of adequate appreciation and intelligent criticism of this truly wonderful performance. However, a few facts already stand out from this record, and these deserve comment.

The time spent in the air without the aid of mechanical motive power more than doubles the previous world's gliding duration record, made by the Frenchman Peyret. This removes the last possible doubt that a glider could stay up a whole day, provided the wind conditions were right, and the pilot could stand the strain. But Lieutenant Thoret's performance assumes particular significance from the fact that it was made with a standard army airplane which had not even been modified for the purpose.

Thus the gliding experiments for which so many contradictory claims were made are beginning to bear fruit. We are about to learn how to utilize "wind power" instead of merely tearing through the air by brute force. The significance of this fact for military observation is of the first importance.

Airports in the United States and Possessions

Compiled by the Aeronautical Chamber of Commerce of America, Inc., 501 Fifth Avenue, New York, N. Y., with the assistance of the Airways Section, U. S. Air Service; Bureau of Aeronautics, Navy Department; Air Mail Division, Post Office Department; and the National Advisory Committee for Aeronautics.

Revised as of January, 1923

Probably the most conspicuous deficiency in facilities for the proper growth and development of air transport (outside aerial law) is found in the lack of a comprehensive nation-wide system of organized airports, charted and classified according to route and construction.

To some extent this deficiency has been met through guidance and counsel from the Air Port Committee of the Aeronautical Chamber of Commerce, the daring of pioneer operators, and the vision of a comparatively few municipalities, but unquestionably, most of all, through the initiative and co-operation of the government flying services—military, naval and postal. The most conspicuous government service has been performed by the Airways Section, U. S. Air Service, under the direction of Capts. Burdette Wright and St. Clair Streett.

Today it is estimated that there are 3,000 airports and landing fields of various types and classification in the United States and possessions. The list compiled by the Aeronautical Chamber of Commerce, which follows, indicates approximately 200 commercial ports, 140 government airports and 160 municipal or state airports in addition to 2500 fields that can only be designated as unimproved facilities.

Lacking a Bureau of Civil Aeronautics in the Department of Commerce, establishment of which by congressional act was expected early in 1923, the Airways Section has been gathering information on airports and has now on file in Washington photographs and detailed technical data on practically all the terminals in this list. The Section has prepared brief instructions on "How An Airport Should Be Built," which are reproduced below together with a diagram illustrating four types of ideal landing fields.

How An Airport Should Be Built

Whether the importance of a community warrants the building of a thoroughly modern air terminal, or whether a minor airport will satisfy its needs, or be within its financial resources, it is essential for the success of air navigation that all airports conform in certain particulars to a given standard. This standard has been worked out in specifications which follow.

The location of an airport should be so selected as to bring it within reach of ground transportation facilities, for the aerial transportation of passengers and merchandise is closely interlinked with these conveyors of commerce. The site should be capable of expansion in case of future necessity.

Size and Shape of Airports

While the size of airports depends upon many problems peculiar to each city, there is a minimum size for airports which are intended to take care of all types of airplanes and airships used today, now under construction, or contemplated, under all conditions of traffic and weather. This minimum size should allow a clear unobstructed area of about 900 yd. along the direction of the prevailing wind, if not in all directions. Such a field would allow a moderate insurance of airplanes and property in the case of engine failure on take-off. Smaller fields, allowing about 600 or 700 yd. of unobstructed area, will permit the average pilot, in any present type of airplane, to land and take-off without difficulty, provided no engine failure occurs. The dimensions given may seem excessive, and many planes have landed safely and operated from smaller fields. However, the point to be considered is the saving of life and property.

The usefulness of small fields is determined by the presence or absence of obstacles around the field which prevent a clear approach for landing. An obstacle about 100 ft. high, for instance, would make at least 700 ft. of a landing field unavailable for landing. Thus, the available length of the runway should be computed by subtracting seven times the height of obstacles that materially obstruct the approach to a landing field from the total length or breadth of the field.

It must be borne in mind that airplanes and airships must be landed heading directly into the wind. Thus, the best shape for a landing field, is, roughly, a square, in that it allows landing or taking-off in any direction. "L" shape and rectangular fields are only slightly less useful, mainly because they restrict to a certain degree the number of angles of possible approach for landings.

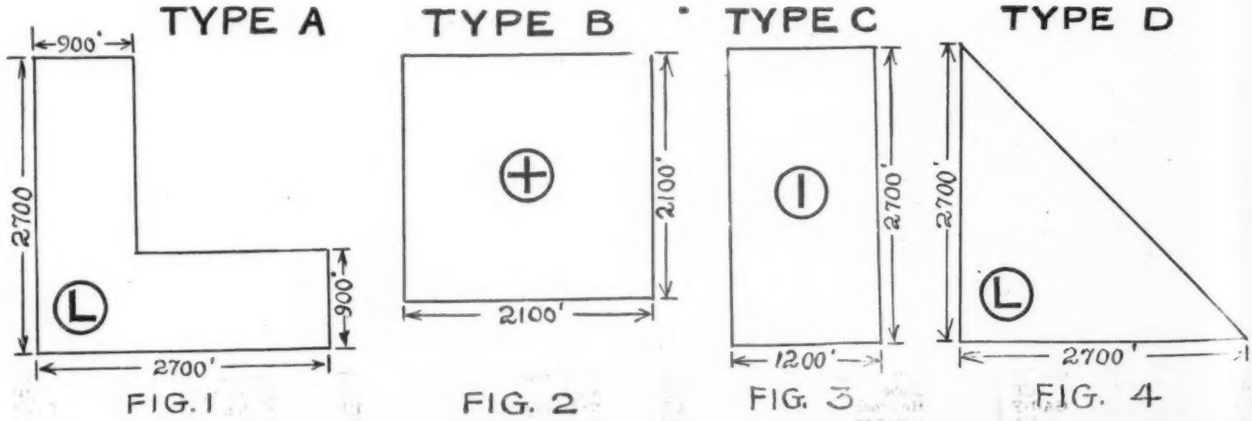


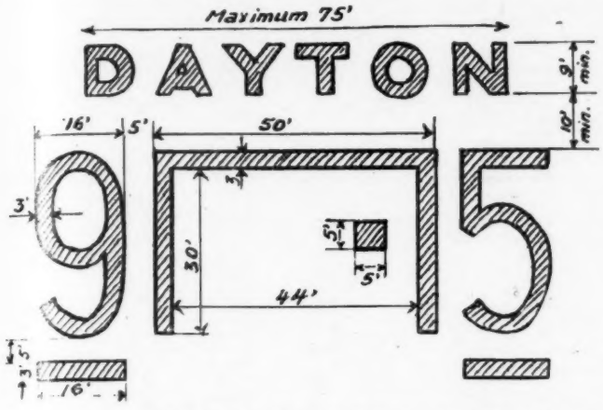
FIG. 1 FIG. 2 FIG. 3 FIG. 4

Four types of ideal landing fields recommended by the Airways Section, Army Air Service

Character of Ground

The ground should be firm under all weather conditions, sodded if possible on account of the dust, which is not only disagreeable but injurious to the working parts of the motor. The surface should be level and fairly smooth. Ditches or deep furrows will cause considerable damage, if not wreck an airplane.

Obstacles surrounding fields, such as high buildings, telephone and telegraph, or high tension transmission lines, trees, etc., very materially decrease the amount of landing



Ground marker adopted by the Air Service for identification of localities

runway, as shown in preceding paragraphs. Where only trees or telegraph lines obstruct the approaches, trees can be cut down and telegraph lines placed underground in conduits.

Markings

When a field has been set aside and been inspected by a pilot, preferably an Army Air Service pilot, familiar with the requirements of modern types of airplanes, it should be marked with a landing circle, this marker to be placed in the center of the landing area. The circle should be large, of white color, 100 ft. in diameter, with a band 4 ft. wide, constructed so as to be flush with the ground, so that in no way will it interfere with the rolling of an airplane over it. These circles can be best constructed by digging a shallow trench about four to six inches deep, filled with crushed stone or other material. Planking can also be used. The circle should always be kept white with lime or some other compound for this purpose.

Within the landing circle, *direction landing markers* should be placed to show the best runways and approaches for landing and taking-off. These markings should consist of panels, 15 ft. long by 3 ft. wide, and should parallel the direction of the least obstructed approaches. They should be flush with the surface of the ground, so as not to obstruct the rolling of an airplane over them. They should be kept white with lime or some other material.

The international identification marker should be placed in the northwest corner of the field.

All markings should be kept white, so as to be seen easily at a great distance in the air.

A wind indicator, such as the standard wind cone, should be placed in one corner of the field, about 30 ft. off the ground, or on the hangar if there is one.

At fields where the wind indicator has not been erected, a cloth "T" should be placed on the field to indicate the direction of the wind. This "T" should be made of strips of cloth, approximately 3 ft. wide by 15 ft. in length. The top of the "T" is to be placed directly across the path of the wind. The lower part of the "T" should parallel the direction of the wind in the direction in which it is blowing, so that a plane about to land will land with the bottom of the "T" toward the top, or directly into the wind. A smudge fire is also a very excellent type of wind indicator.

An airport should have communication by telephone with nearest city or town, transportation facilities, gasoline, oil, and sundry supplies. Hangars and shops will be needed as the use of the field develops.

List of Permanent and Temporary American Airports

NOTE:—The Aeronautical Chamber of Commerce has endeavored to obtain accuracy in this list, but due to the fact that much of the information is voluntary, responsibility can not be taken for errors in classification. Where detailed data is desired, the Aeronautical Chamber of Commerce invites correspondence.

The names of Flying Fields are printed in *italics*.

The letters following the city or town indicate the kind of airport, as follows:

B —Balloon
C —Commercial
G —Government
GA — " —Army
GN — " —Navy
GPO— " —Post Office
GFP—Government—Forest Patrol
M —Municipal
Mr —Marine
NG —National Guard
S —Seaplane
UF —Unimproved Facilities

Alabama

Albany	UF	Coatapa	UF	Greensville	UF	Ozark	UF
Andalusia	UF	Deatsville	UF	Grovehill	UF	Phoenix	UF
Anniston	GA	Demopolis	UF	Hartsell	C	Prattsville	UF
Atalla	UF	Elmore	UF	Haynesville	UF	Selma	UF-C
Athens	UF	Enterprise	UF	Huntsville	UF	Snelling	UF
Auburn	UF	Eufaula	UF	Hurtsboro	UF	Thomasville	UF
Autaugaville	UF	Eutaw	UF	Jasper	UF	Troy	M
Bay Minette	UF	Evergreen	UF	Linden	UF	Tuscumbia	UF
Birmingham	NG	Fayette	UF	Marion Junction	UF	Verbena	UF
Brewton	UF	Florence	UF	Mobile	UF-S	Vernon	UF
Centerville	UF	Gadsden	UF	Monroeville	UF	West Blockton	UF
Clanton	UF	Greensboro	UF	Montgomery	UF-G		
				Maxwell Field			

Arizona

Ajo	GA-UF	Fort Thomas	UF	Morristown	UF	Prescott	UF
Bisbee	UF	Globe	UF	Naca	UF	Springerville	UF
Clifton	GA-UF	Holbrook	UF	Nadaburg	UF	St. Johns	UF-M
Douglas	GA	Kingman	M	Nogales	GA	Tuscon	M
Flagstaff	UF	Maricopa	UF	Peach Springs	UF	*Macauley Field*	
Fort Huachuca	G-UF	Miami	UF	Phoenix	M	Wilcox	UF
						Yuma	M

Arkansas

Arkadelphia	UF	Brinkley	UF	DeWitt	UF	Harrison	UF
Batesville	UF	Buffalo Creek	UF	El Dorado	UF	Hazen	UF
Berryville	UF	Danville	UF	Fayetteville	UF	Helena	UF
Blytheville	UF	Dardanelle	UF	Fort Smith	UF	Hope	UF
Jonesboro	UF	Newport	UF	Stuttgart	UF		
Little Rock	GA	Ogden	UF	Texarkana	UF		
Camp Pike		Paragould	UF	Van Buren			
Lonoke	G	Pine Bluff	M	Warren	UF		
Marked Tree	UF	Prescott	UF	Wynne	UF		

California

Alameda	UF	Delano	UF	Natoma		San Jose	C
Alpine	UF	Del Mar	UF	Needles	GA-M	San Leandro	UF
Alturas	M	Del Monte	C-UF	Nellie	UF	San Luis Rey	UF
Angeles Camp	UF	El Centro	M	Nevada City	UF	San Mateo	UF
Arcadia	GA	*Puryear Field*		Newman	UF	Santa Ana	UF
Ross Field		Elsimore	UF	*Canal Field*		Santa Barbara	S
Arroya Grande	UF	Eureka	UF	Oakland	C-UE	Santa Clara	UF-C
Auburn	M	Fallbrook	UF	*Chevrolet Motor Car Co. Field*		Santa Monica	C-M
Bakersfield	GFP-M	Fort Bragg	UF	*Clif Durant Field*		*Douglas Field*	
Balboa Harbor	S	Franklin	UF	Ontario	M	Seeley	M
Barstow	M	Freeport	UF	*Latimer Field*		Shingle Springs	UF
Bay Point	UF	Fresno	M	Oroville	UF	Sierra Madre	C
Beaumont	UF	Garden Valley	UF	*Riley Field*		Slatington	UF
Beresford	C	Georgetown	UF	Palmdale	M	Soledad	UF
Berkeley	C	Grass Valley	M	Pasadena	C-UE	Sonore	UF
Bloomington	UF	Grenade	UF	*Eliel Field*		*Lijedahl Field*	
Blythe	M	Gridley	C	*DeMille Field*		Spadra	UF
Bodie	UF	*Fricsley Field*		Perris	UF	Stockton	C
Booke Flat		Hanford	M	Petaluma	UF	*Pond Field*	
Brawley	UF	Hayward	UF	Point Loma	UF	Suisun	UF
Bridgeport	M	Hollister	C	Polaris	UF	Susanville	UF
Bryant Field		*Turner Field*		Quincy	UF	Tallac	C
Burbank	C	Hollywood	C	Ramona	UF	Techochapi	UF
Brand's Field		*DeMille Field*		Red Bluff	G-C	Temecula	UF
Calexico	G	Holtville	UF	*Bidwell Field*		Tracy	UF
Calipatria	UF	Kelso	UF	Redding	M	Truckee	UF
Camp Kearney	GA	Lancaster	UF	Redlands	M	Tulare	UF
Chico	M	Lake Tahoe	C	Redwood City	C	Venice	UF
Chinese Station	UF	*Tallac Field*		Richmond	UF	*Ince Field*	
Chino	UF	Lakeport	UF	Rio Vista	UF	Ventura	UF
Chowchilla	M	Long Beach	M	Riverside	GA	Victorville	UF
Colfax	UF	Los Angeles	M-C	*March Field*		Visalia	UF
Colusa	UF	*Goodyear Park*		Rocklin	UF	Warner Springs	UF
Concord	M	*DeMille Field*		Rosedale	UF	West Berkeley	C
Corona	UF	Madera	UF	Sacramento	GA	Willow	UF
Corning	M	Markleeville	UF	*Mather Field*		Wilmington	UF
Coronado	G	Maxwell	UF	San Carlos	C	Winchester	
Rockwell Field		Mecca	UF	San Diego	S-GA-N	Woodland	M
Cotati	C	Merced	UF	*Rockwell Field Naval Air Station*		Yosemite	UF
Cottonwood	UF	Mills	UF	San Francisco	S-GA-N-PO	Yermo	UF
Courtland	UF	Modesto	M	*Crissy Field*		Yreka	M
Crescent City..	UF	Mojave	UF	*Marina Field*		Woodlawn	UF
Daggett	G-UF	Montague	UF				

Colorado

Aguilar	UF	Cortez	UF	Flagler	UF	Malta	UF
Akron	M	Creede	C	Fort Collins	UF	Meeker	UF
Aspen	UF	De Begue	UF	Fort Morgan	UF	Montrose	UF
Boulder	UF	Denver	C	Glenwood Springs	UF	*Sunset Mesa*	
Buena Vista	M	*Curtiss Humphreys Field*		Grand Junction	M	New Castle	UF
Burlington	C	Durango	UF	Gypsum	UF	Pueblo	M
Canon City	M	Eads	UF	Kobe	UF	Red Cliff	UF
Cheyenne Wells	UF	Eagle	UF	Lamar	UF	Riverside	UF
Colorado Springs	C	Englewood	UF	Limon	UF	Salida	M
Broad Moor Field		Estes Park	C	Leadville	UF	San Luis	UF
						Trinidad	UF
						Wolcott	UF

Connecticut

Ansonia	UF	Cockackie	UF	Meriden	UF	Pawtucket	UF
Black Rock Harbor	GS	Danbury	UF	Middletown	C	Stamford	UF
Bridgeport	S-UF	*Tucker Field*		New London	UF	St. Johnsbury	UF
Bristol	UF	Hartford	M-S	*Mitchell Ball Field*		Waterbury	C
						Willimantic	UF

Delaware

Middletown	UF	Newark	UF	Newcastle	S-UF	Porters	UF
						Rehoboth Beach	UF

District of Columbia

Anacostia	S-GN	Bolling Field	GA	Washington	G		

Florida

Apalachicola	S	Eustis	UF	Kissimmee	M	Ormond	UF
Arcadia	GA	Fernandino	S	Labelle	UF	Palatka	S
Dorr Field		Fort Mead	UF	Lake City	UF	Palm Beach	CS
Carlstrom Field		Fort Myers	M	Lakeland	M	*Aeromarine Station*	
Avon Park	M	Fort Pierce	M	Leesburg	UF	Palmdale	S-UF
Baldwin	UF	Gainesville	UF	Live Oak	UF	Pensacola	S-GN
Bartow	UF	Gladecrest, Mail, Dearfield P. O.	UF	Marianna	UF	St. Augustine	S-UF
Belleair Heights	CS	Glendale	UF	Miami	CS	St. Cloud	UF
Aeromarine Station		Green Cove Springs	S-UF	*Aeromarine Station*		St. Petersburg	S-UF
Bonifay	UF	Hampton Springs	UF	*Chapman Field*		*Aeromarine Station*	
Bradentown	M	Hobe Sound	UF	*Curtiss Field*		Sanford	CS
Brooksville	UF			Mooreshaven	UF	Seabreeze	UF

Florida—Continued

Carson Ranch, Mail Alva P. O. UF
Daytona M
Daytona Beach S-UF
DeFuniak Springs M
DeLand S-UF

Immokalee UF
Jacksonville GA
Camp Johnston
Key West G-C-S
Aeromarine Station

Moultrie UF
North Labelle M-UF
Ocala UF
Okeechobee M
Orlando C

Seabring UF
Tallahasee UF
Tippens Pens, Mail, Immokalee P. O. UF
Tampa UF
Aeromarine Station
Titusville M-UFS

Georgia

Albany C
Curtiss Field
Americus GA
Souther Field
Ashburn UF
Athens UF
Atlanta UF
Augusta C-GA
Camp Hancock
Bellevill UF
Blakely UF
Brunswick S-UF
Buena Vista UF
Camp Benning UF
Camp Gordon UF

Canton UF
Cordelle UF
Cumberland Island UF
Mail, Brunswick P. O.
Dawson UF
Douglas UF
Ellaville UF
Fitzgerald UF
Fort Valley C
Curtiss Field
Gracewood UF
Griffin UF
Hawkinsville UF
Hopeville UF
LaFayette UF
McRae M

Macon M
Madison UF
Marshallville C
Curtiss Field
Milledgeville UF
Montezuma UF
Curtiss Field
Moultrie UF
Oglethorpe UF
Omaha UF
Plains UF
Reynolds UF
Richland UF
Rome UF
Savannah M-S
Daffin Park

Shellman UF
Sugar Valley UF
Sylvania UF
Sylvester UF
Thomasville M
Thomaston UF
Tifton UF
Valdosta C
Vidalia UF
Washington UF
Waycross M
Waynesboro UF
West Rome UF
Wrens UF

Idaho

Blackfoot UF
Caldwell UF
Frost Field
Chalis UF
Coeur d Alene GFP-M
Corbin UF
Garwood UF

Grangerville UF
Hauser UF
Hope UF
Idaho Falls UF
Lewiston C
Malad City UF
Moscow UF

Mountain Home UF
Paris M
Pocatello M
Brady Field
Rathdrum UF
Salmon M
Sand Point UF

St. Anthony M
Thompson Falls UF
Twin Falls UF
Twin Lakes UF
Warren UF
Weiser UF

Illinois

Abington UF
Aledo UF
Alron UF-SUF
Ashburn UF
Mail, Chicago.
Ashton UF
Aurora C-UF
Batavia UF
Beardstown S
Beckmeyer UF
Belleville GA
Scott Field
Belvidere UF
Blandenville UF
Poor Farm
Bloomington M
Breese UF
Brownstown UF
Caberry UF
Cairo S
Carlinville UF
Carlyle UF
Carterville UF
Casey UF
Cedar Point UF
Centralia UF
Champaign UF
Chicago GPO-S-C
Clinton UF
Corina UF
Domiansville UF
Danville UF
Decatur UF
Dennison UF
Dow UF

Dupo UF
Du Quoin UF
Effingham UF
Elgin UF
Elmhurst UF
Elmwood UF
Fairfield UF
Fieldon UFU
Fort Sheridan UF-G
Freeburg UF
Geneva UF
Galt UF
Girard UF
Glennellyn UF
Goreville UF
Gorham UF
Great Lakes GS
Greenup UF
Greenville UF
Harvel UF
Havana UF
Hettick UF
Highland UF
Hinkley UF
Jerseyville UF
Kankakee UF
Keenes UF
Kempton UF
Lafax UF
LaHarpe UF
LeRoy UF
Lincoln UF
Litchfield UF
Macombs UF
Malta UF
Marshall UF

Mascoutah UF
Mattoon UF
Maywood GPO-C
Speedway Field GPO
Checkerboard Field
Mendota UF
Meredosia UF
Metropolis UF
Monmouth C-M
Monticello UF
Montrose UF
Morris UF
Morrison UF
Morrisonville UF
Morton Grove UF
Mt. Olive UF
Mt. Sterling UF
Mt. Vernon UF
Murphysboro UF
Nachusa UF
Nelson UF
New Baden UF
New Memphis UF
Newton UF
Odin UF
O'Fallon UF
Olney UF
Pana UF
Peoria UF-UFS
Paris UF
Percy UF
Pinckneyville UF
Pontiac UF
Princeton UF
Ramsey UF

Rantoul GA
Chanute Field
Robinson UF
Rock Falls UF
Rockford GA-UF
Rock Island UF
Rood House UF
Roseville UF
Round Grove UF
Sadorus UF
St. Charles UF
St. Elmo UF
St. Jacob UF
Salem UF
Sandoval UF
Shelbyville UF
Sheldon C
Shumway UF
Sparta UF
Staunton UF
Sterling UF
Steward UF
Streator UF
Sullivan UF
Summer UF
Swanwick UF
Tallula UF
Tamarosa UF
Troy UF
Vandalia UF
Wagoner UF
Watseka UF
Waukegan UF
Wedron UF
West Chicago UF
West Hammond UF
Wheaton UF
Winchester UF

Indiana

Attica UF
Boswell UF
Brazil UF
Burdick UF
Butler UF
Cedar Lake UF
Clear Lake, P. O. Ray. UF
Crisman UF
Crocker
East Gary UF
Evansville UF
Fort Benjamin Harrison GA
Schoen Field
Fort Wayne UF

Frankfort UF
Gary UF
Goshen UF
Helmer UF
Indianapolis UF
Ireland UF
Knox UF
Shillings Farm
Kokomo C
Kokomo Aviation Co.
Lafayette UF
Lakeville UF
Logansport UF
Loogootee UF
McCool UF

Marion UF
Mill Creek UF
Miller UF
Millersburg UF
Mt. Vernon UF
Muncie UF
Ball's Park
New Castle C
New Harmony UF
New Paris UF
North Manchester M
Nutwood UF
Petersburg UF
Richmond C
Roby UF

Rome City UF
Schereville UF
South Milford UF
Spencer UF
Stillwell UF
Sullivan UF
Terre Haute UF
Topeka UF
Vincennes UF
Wabash C
Wakarusa UF
Washington UF
Waterford Mills UF
Wolcottville UF
Wyatt UF

Iowa

Adelphi UF
Atlantic UF
Bettendorf C
Wallace Field
Blairsburg UF
Burlington C
Carlisle UF
Cedar Rapids UF
Centerdale UF
Charles City UF
Clarion UF
Council Bluffs UF
Davenport C

Deep River UF
Des Moines C-2GA-PO
Herring Field
Camp Dodge
Donnelson UF
Dow City UF
Eldora UF
Fort Dodge C
Greene C
Iowa City GPO
Lewis UF
Lowden UF
Lynnville UF

Mason City UF
MacClelland UF
Milford UF
Missouri Valley UF
Montezuma UF
Northwood UF
Norwalk UF
Oakland UF
Osage UF
Oskaloosa UF
Pella UF
Perry C

Reasnor UF
Rockford UF
Rockwell City UF
Sac City UF
Searsboro UF
Shell Rock UF
Sioux City UF
Stanwood UF
Sully UF
Sunbury UF
Waterloo M
Webster City C
West Burlington UF
West Branch UF

Kansas

Arkansas City	M	**Fort Leavenworth**	GA	**Iola**	UF	**Olathe**	UF
Atchison	UF	**Fort Riley**	GA	**Junction City**		**Ottawa**	UF
Belleville	UF	*Camp Funston*		**Kansas City**	UF	**Paola**	UF
Beloit	UF	**Fort Scott**	UF	**Kensington**	UF	**Parsons**	UF
Chanute	UF	**Fredonia**	UF	**Kingman**	UF	**Phillipsburg**	UF
Cherryvale	UF	**Galena**	UF	**Kinsley**	UF	**Pittsburgh**	UF
Coffeyville	UF	**Garden City**	UF	**Larned**	UF	**Plainville**	UF
Clay Centre	UF	**Girard**	UF	**Lawrence**	UF	**Pratt**	UF
Concordia	UF	**Goodland**		**Liberal**	UF	**Salina**	M
Conway Springs	UF	**Great Bend**	C	**Lincoln**	UF	**Scott**	UF
Cottonwood Falls	UF	**Hays**	UF	**Manhattan**	UF	**Seneca**	UF
Council Grove	UF	**Herington**	UF	**Mankato**	UF	**Smith Center**	UF
El Dorado	UF	**Hiawatha**	UF	**Marysville**	UF	**Topeka**	C-UF
Emporia	M	**Hutchinson**	UF	**Newton**	UF	*Longren Field*	
Eureka	UF	**Independence**	UF	**Norton**	UF	**Washington**	UF
						Wellington	UF
						Wichita	C
						Strattford Field	
						Laird Field	

Kentucky

Barbourville	C	**Corydon**	UF	**Morganfield**	UF	**Westport**	UF
Bowling Green	UF	**Lexington**	C	**Paducah**	UF	**Wingo**	UF
		Louisville	M-C	**Stithton**	G		
		Camp Taylor		**Warsaw**	UF		
Carrollton	UF	**Midway**	UF	**West Point**	GA		
				Godman Field			
				Camp Knox			

Louisiana

Alexandria	G-UF						
Camp Beauregard		**Houma**	M	**Minden**	UF	**Shreveport**	UF
Baton Rouge	M-UFS	**Kinder**	UF	**Monroe**	UF	**Tallulah**	UF
Crowley	UF	**Lafayette**	UF	**Natchitoches**	UF	**Welsh**	UF
Delta	UF	**Lake Charles**	G-UF	**New Orleans**	UF		
Burney Field		*Gerstner Field*		**Opelousas**	UF		
Harrisonburg	UF	**Lake Providence**	UF	**Pineville**	UF		

Maine

Auburn	C	**Brunswick**	UF	**Newport**	UF	**Rockland**	UF
Augusta	UF	**Dexter**	UF	**Old Orchard**	CS	**Van Buren**	UF
Muster Field		**Dover**	UF	**Old Town**	UF	**Waterville**	UF
Bangor	UF	**Fort Kent**	UF	*Bachelder's Field*		**York**	C
Belfast	UF	**Kennebunkport**	UF	**Portland**	UF		

Maryland

Aberdeen	GA	**Chestertown**	S	**Elkton**	UF	**Ocean City**	UFS
Annapolis	S	**Clear Spring**	UF	**Emmitsburg**	UF	**Oxford**	UFS
Baltimore	C-A	**College Park**	UF	**Frederick**	UF	**Rockville**	UF
Logan Field		**Crisfield**	S	**Frostburg**	M	**Salisbury**	UFS-UF
Beltsville	UF	**Cumberland**	UF	**Hagerstown**	UF	**Sparrow Point**	UF
Blackistone Island	UF	**Denton**	UF	**Havre de Grace**	UF	*Bethlehem Steelplant*	
Cambridge	S-UF	**Easton**	UFS	**Laurel**	UF		
Camp Meade	GA-UF	**Edgewood Arsenal**	UF	**Northeast**	UF		
Chesapeake City	UF	**Elks Mills**	UF	**Oakland**	UF		

Massachusetts

Amherst	UF	**Clintondale**	UF	**Lowell**	UF	**Sagus**	UF
Durfee Field		**Concord**	UF	**Lynn**	C	**South Bridge**	UF
Ashburnham	UF	**Danvers**	UF	**Mansfield**	UF	**South Framingham**	UF
Auburn	UF	**Deerfield**	UF	**Monomer Hill**	UF	**South Sudbury**	C
Auburndale	UF	**Dorchester**	UF	**Nantasket Beach**	C	**Springfield**	UF
Ayer	G-UF	**Essex**	UF	**New Bedford**	GA-UF	*King Flying Field*	
Bedford	C	**Falmouth**	UF	*Fort Rodman*		**Taunton**	UF
Beverly	UF	**Foxboro**	UF	**Newburyport**	UF	**Waterville**	C
Boston	S-M	**Framingham**	GA	**North Beverly**	UF	**West Springfield**	UF
Boxford	UF	**Grafton**	UF	**North Hampton**	UF	**Westfield**	UF
Bridgewater	UF	**Greenfield**	UF	**Orange**	UF	**Weston**	C
Brockton	UF	**Hamilton**	UF	**Pittsfield**	UF	**Weyland**	UF
Ripley Field		**Hingham**	UF	**Point of Pines**	C	**Weymouth**	UF
Cambridge	CS-UF	**Holyoke**	UF	**Putnam**	UF	**Winchendon**	UF
Chatham	G-S	**Lawrence**	UF	**Readville**	UF		
Chicopee	UF	**Longmeadow**	UF	**Revere Beach**	UF		

Michigan

Adrian	UF	**Dexter**	UF	**Kalamazoo**	UF	**Petoskey**	S
Albion	UF	**Dowagiac**	UF	**Lansing**	C	**Plymouth**	UF
Finley Field		**Fenton**	UF	*McPherson Farm*		**Point Aux Barques**	UF
Almont	UF	**Fowlerville**	UF	**Lapeer**	UF	**Port Huron**	S
Alpena	S	**Glenwood**	UF	**Lawton**	UF	**Redwood City**	UF
Ann Arbor	UF	**Grand Haven**	UF	**Mackinaw**	S	**Roseville**	C
Bad Axe	UF	*Spring Lake Country Club*		**Manchester**	UF	**St. Charles**	UF
Bay City	UF	**Grand Rapids**	C	*Spaferdy Field*		**Saginaw**	UF
Buchanan	UF	**Harbor Springs**		**Manistee**	S	**Sandusky**	UF
Cass City	UF	**Hillsdale**	UF	**Manistique**	UF	**Standish**	UF
Charlevoix	UFS-UF	**Holland**	S	**Mayville**	UF	**Stockridge**	UF
Chelsea	UF	**Howell**	UF	**Midland**		**Traverse City**	S-UF
Croswell	UF	**Imlay City**	UF	**Mount Clemens**	GA	**Wayne**	UF
Dearborn	UF	**Jackson**	UF	*Selfridge Field*		**Yale**	UF
Detroit (Roseville)	C-S	*Sparks Field*		**Mount Pleasant**	UF	**Ypsilanti**	UF
Aeromarine Terminal				**Muskegon**	S	*Combs Field*	
Packard Aviation Field							

(To be continued)

Winter Schedule of Air Mail Service

With Report of Performances Covering Period of Eighteen Months Operations

The winter schedule under which the Air Mail Service is operating, printed below, shows the scheduled time of departure, mileage, and the mails due to be carried. The time for arrival and departure at intermediate stations and arrival at terminals is only for reference. Ships are due to leave the intermediate stations as early as possible after being serviced. Records of past performances indicate that the arriving time at the several terminals is, under ordinary conditions, much earlier than that shown on the schedule, which has been made on a 70 to 90 m.p.h. basis. If ships do not arrive on schedule time, they are charged with being late.

The following is a report of performances for the fiscal year ended June 30, 1922, and also for the first five months, July to November, inclusive, of the present fiscal year:

	Fiscal Year Ended June 30, 1922	*July to Nov., 1922*
Miles flown	1,727,265	769,898
Performance percentage—mileage basis	94.39	98.70
trip basis	93.66	98.27
Letters carried	48,988,920	28,065,400
Weather—trips in fog, etc.	2,433	1,199
trips clear	5,454	2,245

AIR MAIL SERVICE SCHEDULE

NEW YORK TO SAN FRANCISCO

(Daily Except Sundays and Holidays)
Effective Dec. 1, 1922.

	Miles	
Leave New York 7.45 a. m.		500 lb. All letter mail for Cleveland accumulated in New York postal zone after 8.40 p. m., leaving time of NY & CHI RPO Tr. 35. Letter mail for Bellefonte accumulated after midnight. Balance load will be Chicago gateway mail held off N. Y. & Chicago RPO Tr. 9 due to leave N. Y. 5.15 a. m. (due arrive Cleveland 10.50 p. m.) for dispatch to N. Y. & Chicago RPO Tr. 35 due Cleveland 12.35 p. m. At Bellefonte take on pouch for Cleveland to contain mail for that office and connections. (All Cleveland mail advanced one business day. Air mail arrives before 1.00 p. m.; by rail would arrive 5.30 p. m. Tr. 9 due Chicago 8.00; therefore, Chicago gateway mail delivered twenty hours earlier than by rail.)
Arrive Bellefonte 10.00 a. m.	225	
Leave Bellefonte 10.15 a. m.		
Arrive Cleveland by 1.00 p. m.	210	
Leave Cleveland 9.00 a. m. (ET)		500 lb. Take Chicago city mail off N. Y. and Chicago RPO Tr. 21 due to arrive Cleveland 8.35 a. m. Cleveland office will dispatch pouch for Chicago and Bryan. Bryan will dispatch to Chicago. (Chicago mail advanced one business day in delivery. Tr. 21 due to arrive Chicago too late for delivery by carrier that day. Chicago mail received at Cleveland has been worked for carrier and station distribution by railway postal clerks in Tr. 21 between N. Y. and Cleveland. One day service between New York and Chicago. Mail leaving N. Y. 6.46 p. m. delivered by carriers following day in Chicago).
Arrive Bryan 10.00 a. m. (CT)	160	
Leave Bryan 10.20 a. m.		
Arrive Chicago by 12.35 p. m.	175	
Leave Chicago 7.15 a. m.		500 lb. 250 lb. Omaha city and balance California and western mail to connect Omaha & Ogden RPO Tr. 5 at North Platte. (Omaha city mail worked in terminal RPO in Chicago for carrier and station distribution. Delivery advanced one business day.)
Arrive Iowa City 9.15 a. m.	195	
Leave Iowa City 9.30 a. m.		
Arrive Omaha by 12.30 p. m.	230	
Leave Omaha 1.00 p. m.		500 lb. Take western mail from Chicago ship, one pouch each for North Platte and Tr. 5 from Omaha and 300 lb. western mail from C.B. & K.C. Tr. 27, Mpls. & Sioux City Tr. 11-9 and Aberdeen & Sioux City Tr. 4-104 received at Omaha from Huron & Omaha C.P. Tr. 209 for dispatch to Tr. 5 due to leave North Platte 4.32 p. m. (Tr. 5 is exclusive mail train on fast schedule. All mail handled Omaha to North Platte by air mail advanced one business day).
Arrive North Platte 4.15 p. m. (CT) (Do not hold later than 1.30 p. m. for Ship from Chicago, or Omaha train connection)	245	
Leave North Platte 7.30 a. m. (MT)		500 lb. Take mail for Cheyenne, Rawlins, Rock Springs, Billings & Denver Trs. 31 and 32 via Cheyenne, Laramie via Tr. 3, and Omaha & Ogden Tr. 3 via Cheyenne from Omaha and Ogden RPO Tr. 13 due to arrive North Platte 7.10 a. m. At Cheyenne take on all mail available which includes Cheyenne pouch for Rock Springs and pouches for Rawlins and Rock Springs from Tr. 13 received via plane from North Platte. (Tr. 19 due arrive Cheyenne 3.10 p. m. Rawlins 8.10 p. m. and Rock Springs 12.11 a. m. All mail flown from North Platte advanced one busines day)
Arrive Cheyenne 10.15 a. m.	215	
Leave Cheyenne 10.35 a. m.		
Arrive Rawlins 12.30 p. m.	134	
Leave Rawlins 12.50 p. m.		
Arrive Rock Springs by 2.15 p. m.	106	
Leave Rock Springs 7.15 a. m.		400 lb. Take Salt Lake City letter mail off Omaha & Ogden RPO Tr. 5 due arrive Rock Springs 4.36 a. m. (Delivery advanced Salt Lake City one business day. Tr. 5 arrives Salt Lake too late for delivery by carrier that day. Salt Lake City mail received from Tr. 5 has been worked for carrier and station distribution by postal clerks in Tr. 5.)
Arrive Salt Lake by 8.45 a. m. (MT)	155	
Leave Salt Lake City 6.30 a. m. (WT)		400 lb. Take letter mail for Elko, Reno and San Francisco accumulated at Ogden and Salt Lake after departure of Ogden & San Fran. RPO Tr. 9, leaving 12.55 p. m. Elko will dispatch pouches for Reno and San Francisco. Reno will pouch on San Francisco. (Mail delivered in San Francisco 18 hr. 15 min. earlier than arrival by rail).
Arrive Elko 9.00 a. m.	205	
Leave Elko 8.45 a. m.	205	
Arrive Reno 12 noon	235	
Leave Reno 12.15 p. m.		
Arrive San Francisco by 2.15 p. m.	190	

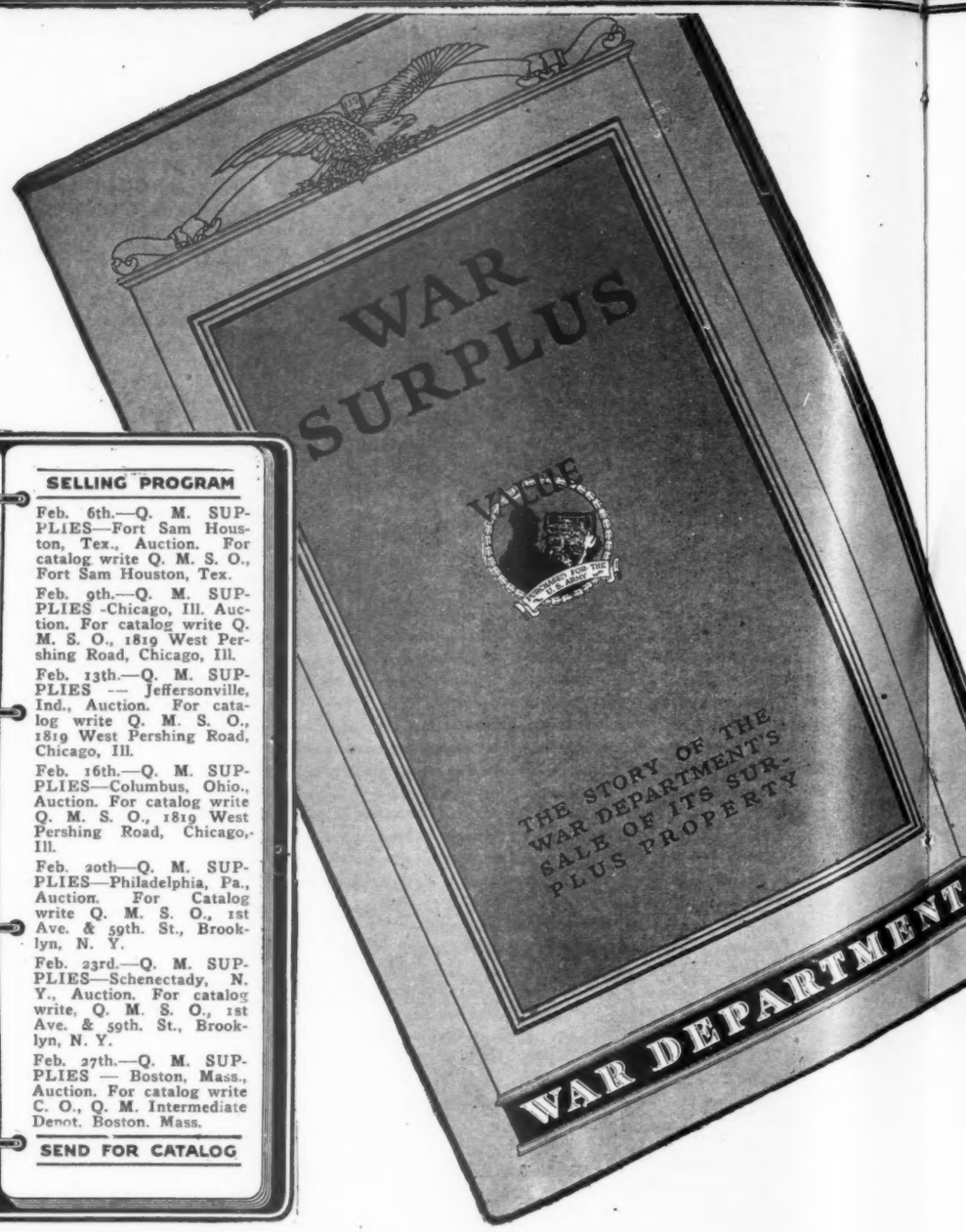
SAN FRANCISCO TO NEW YORK

	Miles	
Leave San Francisco 2.30 p. m. (WT)		400 lb. Take all eastern mail accumulated at San Francisco after departure of Ogden & San Fran.

U.S.

Note:—

28,000 tons SODIUM NITRATE, stored at Jacksonville, Tenn., will be sold by sealed bids to be opened at noon, January 30, by Phila. Dist. Ordnance Salvage Board, Room 808, No. 39 Whitehall St., New York City, where proposal blanks are ready now.



WAR DEPARTMENT	SELLING PROGRAM
JANUARY	
Jan. 8th.—SODIUM NITRATE—N. Y. C., Sealed Bid. For information and proposal form write District Ord. Salvage Board, Room 808, Army Bldg., 39 Whitehall St., N. Y. C.	Feb. 6th.—Q. M. SUPPLIES—Fort Sam Houston, Tex., Auction. For catalog write Q. M. S. O., Fort Sam Houston, Tex.
Jan. 16th. — RAILWAY EQUIPMENT — Wash., D. C., Sealed Bid. For Catalog write, Chief, Corps of Engineers, Room 2830, Munitions Bldg., Washington, D. C.	Feb. 9th.—Q. M. SUPPLIES -Chicago, Ill. Auction. For catalog write Q. M. S. O., 1819 West Pershing Road, Chicago, Ill.
Jan. 16th.—Q. M. SUPPLIES, Brooklyn, N. Y. Auction, For catalog write Q. M. S. O., 1st Ave. & 59th St., Brooklyn, N. Y.	Feb. 13th.—Q. M. SUPPLIES — Jeffersonville, Ind., Auction. For catalog write Q. M. S. O., 1819 West Pershing Road, Chicago, Ill.
Jan. 24th.--AIR SERVICE SUPPLIES — Fairfield, Ohio, Auction. For catalog write, C. O. Fairfield Air Intermediate Depot, Fairfield, Ohio.	Feb. 16th.—Q. M. SUPPLIES—Columbus, Ohio., Auction. For catalog write Q. M. S. O., 1819 West Pershing Road, Chicago, Ill.
FEBRUARY	Feb. 20th—Q. M. SUPPLIES—Philadelphia, Pa., Auction. For Catalog write Q. M. S. O., 1st Ave. & 59th. St., Brooklyn, N. Y.
(These sales dates are subject to change.)	Feb. 23rd.—Q. M. SUPPLIES—Schenectady, N. Y., Auction. For catalog write, Q. M. S. O., 1st Ave. & 59th. St., Brooklyn, N. Y.
Feb. 1st. — MEDICAL & HOSPITAL SUPPLIES —Brooklyn, N. Y., Auction. For catalog write Medical Supply Officer, 1st Ave. & 59th St., Brooklyn, N. Y., or M. Fox & Sons Co., Official Auctioneers, Baltimore, Md.	Feb. 27th.—Q. M. SUPPLIES — Boston, Mass., Auction. For catalog write C. O., Q. M. Intermediate Depot. Boston. Mass.
SEND FOR CATALOG	SEND FOR CATALOG

The Government reserves the right to reject any or all bids.

WAR DEPA

ONE hundred thousand booklets explaining the "what" and the "why" of War Department surplus are ready for free distribution.

The War Department wants you to know there are a host of bargains to be offered the public in the coming months; and it wants to be sure you know how to get your full share of the benefits for buyers in all War Department sales.

The booklet illustrated on this page will be a decided help.

It explains just how sales are conducted—how simple a matter it is to buy from the War Department; and it gives a clear idea of the wide range of commodities remaining to be sold.

Many notable sales will be held in the next few months. A partial schedule is given herewith.

Ask your stenographer to send for your copy of the booklet, and be prepared to make capital of War Department bargains. Address Major J. L. Frink, Chief, Sales Promotion Section, Room 2515, Munitions Bldg., Washington, D. C.

Ask your Steno-

Write for this Booklet to-day!

PARTMENT

Arrive Reno by 4.30 p. m.	190	Tr. 2 due to leave San Fran. 11.00 a. m.; also pouch for Reno. Dispatch eastern mail to Tr. 2 which is due to depart Reno 9.30 p. m. (Mail for Chicago and east advanced one business day by overtaking fast Tr. 2 at Reno).
Leave Reno 7.00 a. m. (WT) Arrive Elko 9.30 a. m. Leave Elko 9.45 a. m. Arrive Salt Lake by 12 noon (WT)	235 205	400 lb. Take eastern mail off Ogden and San Fran. Tr. 20 due to arrive Reno at 4.35 a. m. and dispatch to Omaha & Ogden Tr. 2 due to leave Salt Lake 12 noon. San Francisco dispatch pouch for Salt Lake via Tr. 20. Reno pouch on Elko and Salt Lake; Elko pouch on Salt Lake. (Tr. 20 leaves San Francisco 6.00 p. m. and this dispatch connects at Ogden with Tr. 2 which left San Francisco at 11.00 a. m. previous day. Advances eastern mail one business day).
Leave Salt Lake 7.30 a. m. (MT) Arrive Rock Springs 9.15 a. m. Leave Rock Springs 9.30 a. m. Arrive Cheyenne by 11.30 a. m.	155 240	400 lb. 150 lb. Salt Lake post office and 250 lb. from S. L. C. & C. A. L. RPO Tr. 4 due to arrive 6.40 a. m. Salt Lake office and clerks in Tr. 4 to pouch on Cheyenne office and on Omaha & Ogden RPO Tr. 20 due to leave Cheyenne 12.40 p. m. Rock Springs pouch on Cheyenne. (Tr. 20 leaves Salt Lake at 7.50 p. m. By overtaking this train at Cheyenne eastern mail is advanced one business day).
Leave Cheyenne 7.30 a. m. (MT) Arrive North Platte 9.30 a. m. (MT) Leave North Platte 10.50 a. m. (CT) Arrive Omaha by 1.15 p. m.	215 245	500 lb. Take Omaha city mail off Omaha & Ogden Tr. 6 due to arrive Cheyenne 1.30 a. m. (Arrive Omaha 4.50 p. m.) and from Omaha and Ogden Tr. 2 due Cheyenne 5.25 a. m. (due Omaha 7.15 p. m.) Cheyenne to pouch on Omaha, North Platte and Chicago and Council Bluffs Tr. 1. Tr. 2 dispatch New York and New England States for Chicago & Council Bluffs Tr. 8 connection due to leave U. P. Transfer, Iowa, at 6.30 p. m. At North Platte take on pouch from that office to contain Omaha city and connections. (Omaha mail advanced in delivery one business day. The same is true of all eastern mail carried between Cheyenne and Omaha).
Leave Omaha 8.00 a. m. Arrive Iowa City 10.30 a. m. Leave Iowa City 10.50 a. m. Arrive Chicago by 1.00 p. m.	230 195	500 lb. Take Chicago city mail from Omaha post office and from Omaha and Ogden Tr. 4 due 7.00 a. m. and from Omaha and Denver RPO Tr. 6 due 7.00 a. m. and Omaha and Ogden Tr. 12 due 7.05 a. m. Omaha post office pouch in Iowa City; Iowa City pouch on Chicago. (Trains from which Chicago mails were taken due to arrive Chicago 8.00 to 10.00 p. m. Chicago mails advanced in delivery one business day).
Leave Chicago 11.00 a. m. (CT) Arrive Bryan 1.00 p. m. Leave Bryan 1.20 p. m. Arrive Cleveland 4.00 p. m. (ET)	175 160	500 lb. Take New York city mail and mail for points east of Cleveland formerly dispatched to N. Y. and Chicago RPO Tr. 10 (leaving Chicago 10.30 a. m. and arriving Cleveland 8.30 p. m.) and from Tr. 26 (leaving Chicago at 12.40 p. m. and arriving Cleveland 8.35 p. m.) for dispatch at Cleveland to N. Y. and Chicago RPO Tr. 4 due to leave 6.15 p. m. and arrive N. Y. 8.00 a. m. Chicago post office dispatch pouch for Tr. 4 and for Bryan and Cleveland offices; Bryan to dispatch pouch for Cleveland. (New York city mail dispatched at Cleveland to train arriving in New York in time for bank clearance).
Leave Cleveland 7.45 a. m. (ET) Arrive Bellefonte 10.00 a. m. Leave Bellefonte 10.20 a. m. Arrive New York by 12.45 p. m.	210 225	500 lb. Take New York city letter mail off Tr. 22 N. Y. and Chicago RPO (due to leave Chicago 5.30 p. m. and arrive Cleveland at 2.56 a. m.) Cleveland will pouch on New York; Bellefonte will pouch on New York. (Tr. 22 due to arrive New York 5.25. The New York city mail received from Tr. 22 at Cleveland is worked for carrier and station distribution by railway postal clerks between Chicago and Cleveland. One day service between Chicago and New York. Mail leaving Chicago at 5.30 p. m. delivered by carriers following day in New York).

Air Mail Service in the Mediterranean

The American Consul General at Barcelona, Spain, reports that the Compania Aero-Maritima Mallorquina is in negotiation with the French Latécoère Company which now operates the aerial postal service between Toulouse, France, and Casablanca, Morocco, with the object of making arrangements to recommence the aerial postal service between Barcelona and Palma de Mallorca, in the Balearic Isles.

According to private advices, an arrangement has been effected between the two firms whereby the Latécoère Company will operate the island service in conjunction with its Moroccan service, which stops at Barcellona. The Spanish company in question used Savoia flying boats during its operation of this line, in 1921.

Air Mail Service in Siam

The Siamese government is to purchase nine new airplanes to cost about $103,400 at the present rate of exchange for use in the Postal Service, says Consul M. P. Dunlap, in a report to the Department of Commerce. Although authoritative information has been received as to this contemplated purchase, no specifications or tenders for bids have as yet been issued.

A committee of Siamese aeronautic experts is to decide on the purchase and since these men have been educated in France it was intimated that they would undoubtedly choose French machines. However arrangements are being made through the Siamese Legation in Washington to send students to the United States to receive training in aerial navigation and this will naturally bring Siamese authorities in closer touch with American-made equipment.

Aerial Exploration Work

An airplane will be used to explore the terrain and prospective route of a new railway line from Brazil to Paraguay, according to advices from Asst. Trade Commissioner Cremer at Rio de Janeiro. The commission of engineers studying the problems to be encountered in building a railway from Santos to Asuncion, Paraguay, have authorized the purchase of an airplane at a cost of not to exceed 20,000 Brazilian milreis for use in an aerial survey of the railroad line. The region to be traversed, particularly that section lying between Salto Grande do Paranapanema and Sete Quedas in the state of Paranà, has not been well mapped, and the use of an airplane in studying possible routes through the hilly regions will mean a great saving of money as well as time, it is expected.

The Civil Aeronautics Act of 1923

Bill Introduced in House by Representative Winslow Provides for Comprehensive Federal Air Legislation

A very definite progress has just been made in bringing about federal air legislation.

The Hon. Samuel E. Winslow, Chairman of the House Committee on Interstate and Foreign Commerce, on Jan. 8 introduced in Congress the "Civil Aeronautics Act of 1923", and in a statement called the attention of Congress to the state of the aircraft industry and the need for immediate passage of sympathetic regulatory legislation.

This step marks the overcoming of the greatest remaining obstacle to the enactment of a federal air code. The Wadsworth Bill (S. 3076) passed the Senate last February, but, as Mr. Winslow's statement indicates, subsequent developments made available an exhaustive study, which has resulted in what appears to be unanimous thought and practically assures passage of the revised bill, we hope, within a few weeks.

Following is the statement made by Mr. Winslow in connection with the Civil Aeronautics Act of 1923:

Mr. Winslow's Statement

"The Civil Aeronautics Act of 1923, as introduced by me in the House today, is the mature result of months of inquiry into our need for basic legislation in this new and important field.

"The Wadsworth Bill which passed the Senate last February contained the elements of the desired legislation, but after being referred to the Committee on Interstate and Foreign Commerce of the House, I realized that the subject was so vital in its relation to the future security and prosperity of the nation, that inquiry into every angle was necessary. Thus, with the sympathtic cooperation of Secretary Hoover and Dr. Klein, Chief of the Bureau of Foreign and Domestic Commerce, I have gone thoroughly into the subject.

"It was soon apparent that it would be necessary to redraft the proposed legislation in respect of constitutional questions involved; the situation presented by the International Air Navigation Convention; certain departmental differences; the adaptation of the existing customs, immigration, public health and other regulatory legislation to air travel; some necessary administrative details, as well as certain questions in respect of torts, crimes and court jurisdiction of matters relating to air navigation, as well as questions of form, arrangement and clarity. Frederic P. Lee of the Drafting Service of the House, now Chief Draftsman of the Senate Drafting Service, was requested to make a thorough comprehensive study of the situation. The bill has been constructed under his advice.

"Representatives of the Commerce, War, Navy, Treasury, Post Office and Labor Departments, National Advisory Committee for Aeronautics and such civilian organizations as the Aeronautical Chamber of Commerce, National Aeronautic Association, Society of Automotive Engineers, National Aircraft Underwriters Association, as well as the Aviation Committee of the American Bar Association, and the Commissioners on Uniform State Laws, have participated in our conferences. The bill as introduced by me today is the result. We believe that it will meet the needs adequately and constructively.

"The Act, in brief, provides for the establishment in the Department of Commerce of a Bureau of Civil Aeronautics. The Act is divided into five parts, and establishes authority for the inspection and licensing of aircraft and pilots, establishing and certifying air routes and terminals, as well as rules of the air and their administration, and so cooperating with our Military, Naval, Postal and Commercial air activities that the whole can literally be co-ordinated into the Air Power of the United States. Aviation is, perhaps, the most significant mechanical development of this generation, contributing as it does to the speeding up of transportation and forming the key of our national defense on land and sea.

"In his inaugural message, President Harding urged legislation for the regulation, relief and encouragement of aviation. The establishment and development of Civil Aeronautics has the endorsement of the administration. The basis of Air Power must be a healthy, self-supporting aircraft industry. Among the needs of this industry are increased public confidence, increased capital and more favorable insurance rates. Public confidence will expand as the hazard of aviation diminishes. Capital undoubtedly will enter the field as soon as our basic law governing the operation of aircraft is established upon a sound and broad basis, and under responsible management and direction and reduced hazards, reasonable insurance rates will follow. It is confidently expected that the proposed Civil Aeronautics Act of 1923 will solve practically all of these problems."

Features of the Bill

The following is an informal review of some of the features of the Civil Aeronautics Bill, the fundamental purpose of which is to establish the law of the air for the entire territorial confines of the United States.

The measure is unique in modern legislative history because it deals with a field heretofore untouched by the law-making branch of the government. It is far-reaching in its scope because besides creating some new basic law to meet the already apparent regulative problems of the air and of the aircraft industry, it undertakes to apply so far as possible the statutes in respect of land and water transportation to transportation in the air.

The C.A.A. of 1923 is not solely a regulative measure. It further undertakes to encourage the development of the aircraft industry through setting up governmental agencies which will disseminate both scientific and practical information regarding the progress of aircraft transportation.

The Commissioner of Civil Aeronautics

The bill vests authority over civil aeronautics in the Secretary of Commerce, and creates a bureau in the Department of Commerce headed by a commissioner at $7,500. per annum to administer the act. Provision is made for collaboration in aeronautical problems between the Department of Commerce and other Federal departments by authorizing the Secretary of Commerce to invite the cooperation of the Army, Navy, Marine Corps and Coast Guard through the detail of officers for service in the Bureau of Civil Aeronautics.

A "Civil Aeronautics Consulting Board" to be composed of seven members, chosen by the Secretary of Commerce from the commercial aircraft industry of the country, would under the terms of the bill maintain liaison between the government and the industry, and advise in respect of problems arising either in the promotion of air transportation or its regulation.

The act follows the precedent of exclusive Federal jurisdiction in matters of safety inspection and navigation of the air. In both cases of aircraft inspection and air traffic rules the bill wipes out state lines and deals with the country as a unit. Paraphrasing the language of Chief Justice Taft in the Wisconsin rate cases, it provides:

"Inasmuch as air navigation is a unit and does not regard state lines, and the elements thereof ordinarily subject to regulation by the states are so mingled with those elements subject to regulation by the Federal Government, that the Federal Government cannot effectively regulate, prevent interference with, and safeguard interstate and foreign commerce by air navigation without incidental regulation of intrastate commerce by air navigation and of air navigation for other than commercial purposes, the provisions of this title shall apply in respect of all air navigation in the United States, and to aircraft and airmen engaged, and to air navigation facilities used in such navigation."

Licenses and Certificates

In the regulation of aircraft movements, both commercial and private, wide discretionary authority is vested in the Secretary of Commerce under certain stipulations which seek to apply a combination of the rules now in force in respect of motor transport, railroad operation, and tranportation by water. For example, the measure provides for aircraft operator's licenses, registration of aircraft, and a scheme of identification after the practise of the states in regulating motor travel. It further provides for the issuance of certificates of airworthiness following inspection by the government in the same fashion that the navigation laws requires certificates of seaworthiness for vessels.

The Secretary of Commerce is authorized under the bill to approve air routes for "air commerce" in the United States and to cooperate with both states and private interests in the maintenance of these routes. In this connection the bill includes provisions for the creation of all possible safeguards in these approved air routes, including maps, signals, weather reports, etc. The President is authorized by executive order to make such airspace reservations for national defense or for other governmental purposes as he deems necessary.

The immigration laws, the customs regulations, and the statutes governing the public health are made applicable to the entrance of aircraft from any point outside the United States. The bill provides that all civil aircraft arriving in this country or departing therefrom, with certain designated exceptions, must make entry or obtain clearance through a "port of entry" to be designated by the Secretary of the Treasury. Postal aircraft, those operated as pleasure vehicles, those operating regularly as commercial carriers through a fixed port of entry, and aircraft compelled to make forced landings, are excepted from the foregoing formalities under such regulations as the Secretary of Commerce may prescribe. The Secretaries of War, Navy, Treasury and Commerce are jointly to make regulations for the entry and departure of military and naval aircraft and those operated by the coast guard.

The new air legislation gives the Secretary of Commerce wide investigative powers similar to those of the Interstate Commerce Commission over commercial aircraft operations. He may compel the attendance of witnesses, administer oaths, require the production of books and papers.

Violations and Penalties

The air regulations under the bill are enforced for the most part by civil penalties in the same manner that the customs and navigation laws are enforced. They are drastic in their maximum amounts but are subject to remission and mitigation by administrative officers in order that the amount finally imposed shall accord with the gravity of the offense.

The master of an aircraft navigated without registration or identification or without a certificate of airworthiness is subject to a civil penalty of $1,000. The owner of any aircraft or airport operated without certificate from the Secretary of Commerce is subject to a fine of $1,000. Violations of air traffic rules as prescribed by the Secretary of Commerce are to be visited with a penalty of $500. Failure to maintain proper signals or failure to keep required log-books or other records is similiarly visited with a penalty of $500. Violation of the regulations requiring entry and clearance subjects the master of the aircraft to a penalty of $5,000, and makes all property on board liable to forfeiture.

The bill provides for all criminal violations of the act a fine of $5,000. and imprisonment for not more than five years or both. Under this section comes such offenses as the interference with aircraft signals, display of false signals, forging records or certificates, plundering aircraft in distress, or larceny from any aircraft in interstate commerce.

Foreign civil aircraft may operate over the territory of the United States subject to the same regulations imposed on American aircraft but the Secretary of Commerce may make exceptions in the case of aircraft of a country maintaining reciprocal relations in this connection with the United States. American aircraft operating over foreign territory are subject to American air statutes insofar as they do not conflict with foreign laws. Foreign military aircraft are prohibited from operating in the United States save under a special authorization from the Secretary of State. The President is authorized to employ the army, navy and coast guard to enforce this section.

Bill Follows Principles of I.A.C.

The bill follows substantially the principles and regulations laid down in the International Air Convention of 1919. The United States is not a signatory to this convention, but the new air legislation would have the effect of bringing this country into practical agreement with other nations in administering the air.

In this connection the bill asserts the principle that there is no free right of flight over the United States, but on the contrary this country claims sovereignty of its airspace just as it does of its land and water within the three mile limit. This principle appears in the international convention of 1919 in consequence of the insistence of Great Britain and the United States. Some other European nations wished to consider the air in the same way that the high seas are regarded in international law, that is, without any exclusive jurisdiction or sovereignty.

Another important principle enunciated in the bill appears in the refusal of the government to recognize the private ownership of airspace above certain minimum safety altitudes to be fixed by the Secretary of Commerce. In this, the new law coincides with the existing statutes in respect of navigable waters used in interstate commerce.

In respect of general provisions affecting commerce in the air, the bill applies existing law so far as that is possible. For example, the rules governing the issuance of bills of lading in air-transportation are an adaptation of the provisions of the Cummins-Esch Act to air traffic.

New Records in View

Lieut. Oakley G. Kelly, A. S., stationed at McCook Field, who with Lieut. John A. Macready established a new endurance record of 35 hr. 18½ min. at Rockwell Field last October, and early in November a non-stop flight from San Diego to Indianapolis in an attempt to negotiate a non-stop flight to New York, has received authority from the Chief of Air Service to attempt another duration flight.

Lieutenant Kelly believes that by operating from Wilbur Wright Field, Fairfield, Ohio, with the maximum load of gasoline and the high compression motor, using part benzol for fuel, he can keep the Army Fokker Transport T2 aloft for over 40 hr. Plans are now being made for this attempt at a new record, and from latest accounts it will take place in the latter part of January, 1923.

The Chief of Air Service has also given his approval to a second trial at the transcontinental non-stop flight, which will take place some time next spring, when weather conditions will probably be more favorable than during the winter. In all likelihood the start will this time be made from New York.

7 Hr. Gliding Record

Lieutenant Thoret, a French military aviator, on Jan. 3 beat all glider records by keeping in the air 7 hr., 3 min. at Biskra, Algeria.

The feat was accomplished in a regulation army airplane with the propeller previously wedged to prevent its operation. In addition to its motor, gasoline, and oil supplies, the machine carried an extra weight of 500 lb. It was in no way modified for gliding.

Japanese Air Appropriations

According to *L'Aéro-Sports* of Paris, in the Japanese budget for the fiscal year 1922-23 the sum of $16,200,000 is appropriated for the Naval Air Service, and $5,000,000 for the Army Air Service. A sum of $400,000 is furthermore provided for salaries of foreign air experts.

Howard E. Coffin, Pres. B.H. Mulvihill, V. Pres.

Official Bulletin of National Aeronautic Association of U.S.A.

B.F. Castle, Treas. John B. Coleman, Rec. Sec.

Col. H.E. Hartney, General Manager Cable Address, Nataero
National Headquarters, 26 Jackson Place, Washington, D.C.

The National Aeronautic Association of U.S.A. assumes responsibility for the statements under this heading

Contest Committee, N.A.A.

Col. Frank P. Lahm, Air Service, one of the oldest American fliers, with a distinguished war service, has been appointed Chairman of the Contest Committee of the National Aeronautic Association of U.S.A.

Owing to the importance of this committee which supervises under delegation from the F.A.I. the Pulitzer Races and all other aeronautic events in this country, and which furnishes Officers to observe and authenticate all aeronautic records made in the United States, it was necessary for the National Aeronautic Association to place at the head of this committee the most competent man available in the country. It is therefore a recognition of Colonel Lahm's qualifications that he was selected to head this vital committee, the activities of which are of immense importance to the development of aeronautics in America. It is through sports and contests properly regulated and controlled that peak performances are obtained which point the way to aeronautical engineers and manufacturers engaged in forward looking programs of aeronautic research, experiment, manufacture, and operation.

Colonel Lahm is now on duty at the office of the Chief of Air Service at Washington, D. C. He is a graduate of West Point Military Academy and his earliest connection with aeronautics dates to September, 1906, when he won the first Gordon-Bennett Balloon Race at Paris; he was next in charge of the Wright airplane tests at Fort Meyer, Va., 1908-1909; won the National Balloon Race at St. Louis in 1911, and organized the Army Air Service in the Philippine Islands in 1912. During the war he was attached to Headquarters A.E.F. and Headquarters, Air Service Zone of Advance, Oct. 1, 1917, to July 26, 1918; with Headquarters, First Army, A.E.F. from that date to Oct. 12, 1918, and thereafter until April, 1919, commanded the Air Service, Second Army, A.E.F.

Colonel Lahm is a Military Aviator, holds American Certificate No. 3, spherical balloon pilot; American Certificate No. 2, dirigible balloon pilot; American Aviator's Certificate No. 2 for airplane pilot; and American Expert's Certificate No. 15, for airplane pilot.

Colonel Lahm has already begun work on the details of the Pulitzer races to be held in 1923.

The Federal Air Regulation Bill

Col. W. Jefferson Davis, California lawyer, who represented the War Department, as special counsel, at the Congress on International Aviation Legislation at Prague, is in Washington co-operating with Congressional Committees on the proposed Federal bill governing Aeronautics. While in Europe, Colonel Davis was attached to the American Embassy at Berlin, as legal advisor to the Military Attachè, and after the conclusion of his detail for the War Department, made an extensive study for the American Bar Association of Civil Aviation in Great Britain, France and Italy.

Colonel Davis is counsel for the National Aeronautic Association, and a member of the Aviation Committee of the American Bar Association.

For several years he has endeavored to bring about Federal legislation for the Air Service. The proposed Federal bill will create a Bureau of Civil Aeronautics in the Department of Commerce. Colonel Davis states that, "Congress is faced with the immediate necessity of enacting Federal legislation providing for uniform air laws. The only surprising thing is that this country, a pioneer in flying, should be so long without vision in solving fundamental questions of jurisprudence for the control and regulation of flying. Such a Federal bill, if passed, will become the charter for civil aviation, and will be a basis for the control and sovereignty which the Federal Government can, and should, properly exert over the air."

"In 1917 the nervous energy of the American people expressed itself in preparing its young manhood for service at the front. In the immediate future, this same energy and activity should be expressed in training the youth and talent of the country for efficient service in the air, not only for national defense, but for commercial enterprise.

"The airplane will be a most important link in future national defense. Commercial projects, with airships and airplanes plying between the larger cities of the country will spring into being, as soon as Federal legislation is secured. Commercial aviation has long since passed the experimental stage, and there is immediate necessity for well defined laws governing aeronautics. Early action by Congress will have a marked effect in the development of a new transportation industry."

First District Bulletin, N.A.A.

National Headquarters Hard at Work

At a recent meeting in Washington attended by the National Officers and members of the National Membership Committee, the reports showed that the National Headquarters staff had been getting the decks cleared for action and were hard at the job of getting the country organized to back aviation. Various National Committees had been formed and in this connection the First District has reason to feel proud that Dr. James T. Williams, Jr., Editor in Chief of the Boston *Transcript* was appointed Chairman of the National Publicity Committee. At the same time this announcement was made it was also announced that Orville Wright had accepted the chairmanship of the Committee on Gliding, and it is known that other appointments of the same standard are contemplated. It is certain that with men of this caliber in charge of National Committees, the Association is bound to advance rapidly in the public confidence and esteem.

First District Committees Appointed

At a District Governers Meeting held on Dec. 16, 1922, nominations were made for all the District Committees provided for in the District by-laws, and the following chairman of these committees have already accepted the appointment:

Committee	*Chairman*
Publicity	Dr. James T. Williams, Jr.
Finance	Mr. Godfrey L. Cabot
Legislative	Mr. Melvin M. Johnson
Technical	Mr. Warren Noble
Membership	Colonel E. S. Gorrell
Contest	Mr. Porter H. Adams

Engineers Told of Commercial Aviation

At a meeting of the Affiliated Societies in Tremont Temple on the evening of Nov. 23 "Commercial Aviation" was the subject. Prof. Edward P. Warner spoke of the uses of the heavier-than-air machines; Joseph Schildhauer spoke on the possibilities of lighter-than-air craft in commercial aviation; Lt. R. Curtiss Moffat, Air Service, gave a description of the new Boston airport.

ARMY AND NAVY AIR NEWS

Air Service

Air Service Engineering School—The activities of the Air Service Engineering School at Dayton, Ohio, have been enlarged to include a course in Engine and Airplane Maintenance. There are now two distinct courses given in the school under the general direction of the Secretary, as follows:

COURSE I—General Aeronautical Engineering, Lieut. S. P. Mills in charge.

Courses in Review Mathematics, Mechanics, Cost Accounting, Machine Shop Practice and Physical Testing of Metallic Aircraft Materials and Parts have been completed by the officers in Course I. Classes in Metal Construction, Chemistry, Metallurgy, Testing of Wood, Textiles and Rubber, and Shop Management are now in progress.

COURSE II—Maintenance Engineering, Lieut. Oscar Monthan in charge.

This course commenced officially Nov. 1, 1922, and will continue for five months. The courses in progress at present are Review Mathematics, Motor Theory and actual Motor Overhaul, and Machine Shop Practice.

The following officers are now enrolled in the Maintenance Course, having been assigned by the Chief of Air Service to take this work:

1st Lieuts. Harold L. Clark, Wm. J. Hanlon, Edmund C. Langmead, Deveraux M. Myers and John F. Whitley, from Langley Field; 1st Lieuts. Muir S. Fairchild, and Milo McCune from McCook Field; 1st Lieut. Fred C. Fishback from Mitchel Field; 1st Lieuts. Donald W. Norwood and Peter E. Skanse from Kelly Field; 1st Lieuts. Donald F. Stace and Walter H. Reid from Selfridge Field; and 1st Lieut. Victor H. Strahm from Brooks Field.

* * *

University Students Inspect Balloon and Airship School—The engineering class of the Washington University, St. Louis, Mo., recently visited the Balloon and Airship School at Scott Field, Belleville, Ill.

The student engineers were conducted through the class rooms of the School, receiving short lectures on the means and methods of making balloon observers and airship pilots. The visitors were greatly interested in the construction of the new airship hangar, which is in itself a remarkable engineering feat.

Lieut. D. M. Reeves was head of the reception committee, and Prof. Berger, head of the Engineering Department, Washington University, was in charge of the visitors.

Work has been started on an auxiliary airship hangar at Scott Field, located adjacent to the northwest corner of the large airship hangar recently put into service. The new building, which will cost $18,000 and is being constructed by the W. S. Rae Construction Co. of Pittsburgh, Pa., will be a steel frame structure with asbestos siding. It will be 120 ft. long, 75 ft. wide, and 57 ft. high, and will be used for the construction and repair of large airship parts.

It is expected that the auxiliary hangar will be completed not later than Feb. 11, 1923.

* * *

Lighter-than-Air Activities at Langley Field—The airship C14 recently made three successful flights,, with a total of 3 hr. 50 min. in the air, after a period of idleness for nearly two months while undergoing repairs. The ship subsequently made another flight of two hours' duration.

The military airship A6 is being inflated with helium for experimental purposes.

Landing an Airship with Inexperienced Landing Crews—The officers at Scott Field recently demonstrated the fact that an airship can be easily landed with an inexperienced landing crew away from its home station and its usual facilities, and can pick up passengers and proceed on its flight.

This test was made when Capt. Charles P. Clark, Lieuts. Robert S. Heald, D. L. Hutchins, Orvil A. Anderson and J. W. Benson "took off" from Scott Field at 9.30 a. m., in a free balloon and landed four hours later near Pocahontas, Ill., 30 miles away. The balloon was at once deflated and shipped back to Scott Field.

The nonrigid airship A4, Lieut. Arthur Thomas, piloting took off from Scott Field two hours behind the free balloon and followed it. When the free balloon had been landed and turned over to the local freight agent for shipment, the officers signalled the A4, which was hovering over Pocahontas, and it descended and was landed by the officers with the assistance of several citizens from the crowd which had gathered. Then, after instructing their inexperienced landing party, the officers boarded the A4 and were put in the air in fine shape. The A4 made the return flight to Scott Field in 50 min., landing outside the new hangar at 4.00 p. m.

The free balloon and the airship flights were for training purposes.

* * *

Dayton Chamber of Commerce Honors Major Bane—Members of the Chamber of Commerce of Dayton, Ohio, recently tendered a farewell dinner to Maj. Thurman H. Bane, A. S., former commanding officer of McCook Field, who was retired from active service.

Addresses were made by Robert Elder, President of the Chamber of Commerce; Maj. L. W. McIntosh, Commanding Officer of McCook Field, and Major Bane. C. F. Kettering acted as toastmaster. Mr. Elder presented Major Bane with a gold watch and chain as a token of the esteem of the people of Dayton.

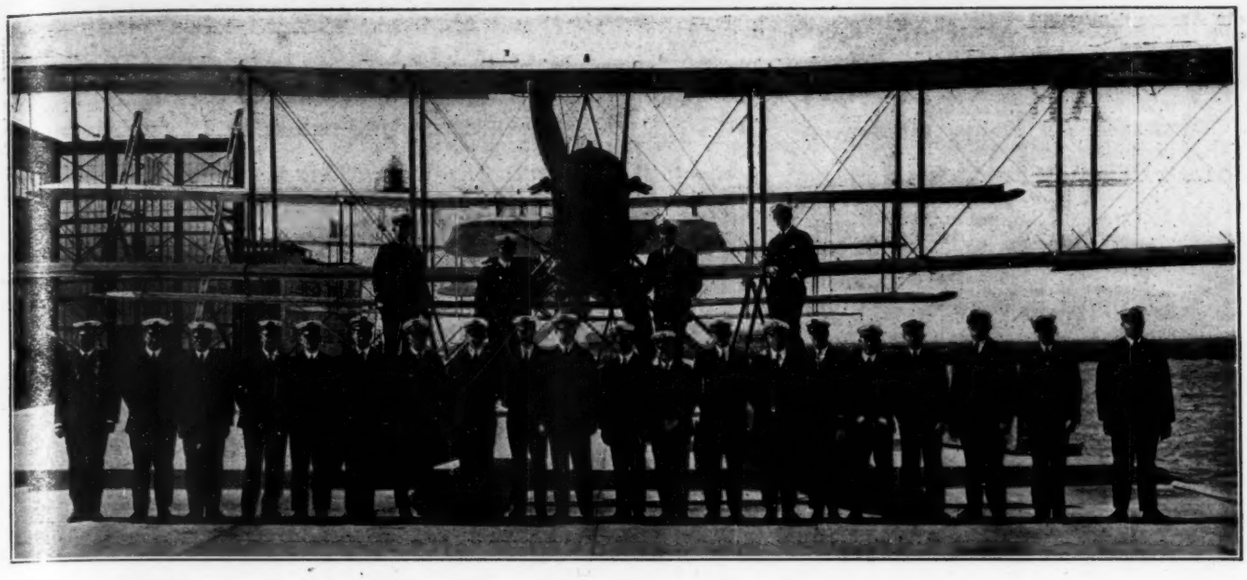
Among the many guests present were Orville Wright, Maj. A. W. Robins and his staff from Wilbur Wright Field, and department heads of McCook Field, etc. The principal topic of the evening was the establishment of the new airport in Dayton.

* * *

Brooks Field Fliers on Long Trip—Maj. Ralph Royce, Commanding Officer of Brooks Field, Capt. C. E. Rust, 1st Lieuts. John D. Corkille, Clements McMullen, Robert M. Webster, Leland R. Hewitt and Staff Sergeants Robert G. Long and Richard E. Hoijyer left Brooks Field at 7.15 a. m. Monday, Dec. 4, for San Diego. Calif. The take-off was made in a heavy fog, which forced the fliers to keep at a low altitude during the entire morning. At 9 o'clock a message was received from Del Rio, stating that Lieutenant Hewitt had been lost from the formation. It later developed that he had been forced to land on account of low fog in the vicinity of Eagle Pass, and in landing the plane had been wrecked by rolling into a ditch and completely burned. Both Lieut. Hewitt and Sergt. Long escaped without injuries, later returning to Brooks via train. The other three ships reached Rockwell Field on Thursday afternoon.

* * *

Clover Field, Santa Monica, Calif.—The War Department announces that the airdrome in process of construction at Santa Monica, Calif., is named "Clover Field" in honor of Sec. Lieut. Greayer Clover, who served with distinction in France during the World War and was killed in an airplane accident in that country on Aug. 30, 1918.



Official Photo, U. S. Navy

Officer-pilots of Torpedo and Bombing Plane Squadrons, U. S. Scouting Fleet

Hydrogen Gas Manufacture at Scott Field—A new hydrogen gas plant is being put up at Scott Field at a total cost of approximately $250,000. The equipment of the plant is being furnished by the Government, and the W. M. Sutherland Construction Co., of St. Louis, has the contract for putting up the buildings.

The plant will consist of two separate gas manufacturing units—one makes gas by the oil cracking process and the other makes gas by the electrolytic process. This plant will make a total production capacity of 6,000 cu. ft. of gas per hour.

* * *

New Airplanes for the Chief of Air Service—Three more special DH4B Messenger airplanes are nearing completion for the use of General Patrick, Chief of Air Service. These airplanes are all of natural finish, having 135 gal. capacity gasoline tanks which are specially adapted for extended cross-country flights.

The first one of this type, which was completed early this fall, was delivered to General Patrick, who was very much pleased with the design and workmanship. He demonstrated his appreciation by having his picture taken with a group of the mechanics who built the ship, using the airplane as a background.

Naval Aviation

Naval Aviation Observers—During the year a new class of aviation officers has been established, known as Naval Aviation Observers, and Rear Admiral Moffett was the first to qualify in this rate.

In order that a number of the officers assigned to the Bureau of Aeronautics might become more familiar with actual flying conditions and the duties of an observer, a course of three months duration was established at the Naval Air Station at Pensacola, Fla.

These officers are not qualified as pilots but are qualified in aerial navigation, gunnery, bombing, spotting, radio, etc.

The Naval officers who have qualified are as follows: Rear Admiral W. A. Moffett, Comdr., E. S. Land, (C.C.), Lt. Cdr. R. M. Griffin, Lt. Cdr. W. W. Webster, (C.C.), Lt. C. P. Harper (C.C.).

Lt. T. T. Patterson, Information Officer of the Bureau, has just been assigned to take the course and is now en route to Pensacola.

Officers for Duty with Rigid Airships—It is expected that the rigid airship ZR1, under construction at the Naval Air Station, Lakehust, N. J., will be ready for operation about July 1, 1923; the ZR3, under construction in Germany, may be delivered some months later. Eighteen officers are required for these ships, nine for each one; at present, ten officers are available for such assignment, and it will be necessary to detail eight others from general service, as follows:—

1 Captain or Commander—Command ZR3.
1 Commander or Lieutenant Commander—Executive Officer ZR1.
2 Commanders or Lieutenant Commanders—Navigators.
4 Lieutenant Commanders or Lieutenants—Watch Officers.

These airships will operate from Lakehurst for practice in handling and will later extend their cruising as may be practicable. They will be inflated with helium gas.

In order that officers who desire assignment to this new duty may express themselves, a circular letter is issued by the Bureau of Navigation and a reasonable time will be allowed for replies to be received. It is desired to assemble the personnel at Lakehurst about Feb. 1, 1923, in order to begin a course of instruction and training.

The age limit prescribed by the Bureau Manual for officers entering aviation duty will be waived in the cases of the officers applying, but they will be required to appear for a special physical examination.

Coming Aeronautical Events

FOREIGN

1923

March 15 — *Entries close for Dutch Height Indicator Competition.*

June — *International Aero Congress, London.*

July 20-Aug. 12 — *International Aero Exhibition, Gothenburg, Sweden.*

Dec. 1 — *Entries close for French Engine competition.*

Naval Orders—Lt. Comdrs. Earl W. Spencer, det. Bu. Aer.; to Asiatic Station.

Lieut. Adolph Merkt, det. Navy Yard, Norfolk, Va.; to U.S.S. Aroostook.

Lieut. Dewitt C. Watson, det. Nav. Air Sta. Pensacola, Fla.; to Aircraft Sqds., Battle Fleet.

Ens. Lawrence W. Curtin, det. Nav. Air Sta. Pensacola, Fla.; to wait orders.

Lieut. Thomas J. Shack (C.C.), det. Nav. Air Sta. Lakehurst, N. J.; resignation accepted.

Lieut. Charles A. Ammerman (Med. C.), Det. Med. Research Lab. and School for Flight Surgeons, Mitchel Field; to Nav. Air Sta. Anacostia.

Lieut. Frank R. Bealer (Med. C.), det. School for Flight Surgeons, Mitchel Field; to Marine Barracks, Quantico, Va.

Lieut. James D. Benjamin (Med. C.), det. School of Flight Surgeons, Mitchel Field; to U.S.S. Langley.

Lieut. William W. Davies (Med. C.), det. School of Flight Surgeons, Mitchel Field; to Marine Barracks, Quantico, Va.

Lieut. Herman E. Halland (Med. C.), previous orders revoked; to continue duty, Aircraft Sqds. Battle Fleet.

Lieut. David Rittenhouse, det. Nav. Air Sta. Anacostia, D. C.; to Bu. Aer.

Lieut. j.g. George A. Ott, det. Aircraft Sqds. Battle Fleet; to Nav. Air Sta. Pensacola, Fla.

Lieut. John C. Adams (Med. C.), det. School of Flight Surgeons, Mitchel Field; to Nav. Air Sta. Pensacola, Fla.

Lieut. Jerome Braun (Med. C.), det. U.S.S. Langley; to nearest Rec. Ship.

Lieut. Frank H. Clements (Med. C.), det. School of Flight Surgeons, Mitchel Field; to Nav. Air Sta. Hampton Roads.

Lieut. Robert P. Henderson (Med. C.), det. School of Flight Surgeons, Mitchel Field; to U.S.S. Aroostook.

Lieut. George L. McClintock (Med. C.), det. School of Flight Surgeons, Mitchel Field; to Nav. Air Sta. Coco Solo, C. Z.

Lieut. John R. Popen (Med. C.), det. School of Flight Surgeons, Mitchel Field; to Nav. Air Sta. Pensacola, Fla.

Lieut. Alma C. Smith (Med. C.), det. School of Flight Surgeons, Mitchel Field; to Nav. Air Sta. Hampton Roads.

Lieut. William H. Wyinn (Med. C.), det. School of Flight Surgeons Mitchel Field; to Nav. Air Sta. Pearl Harbor, T. H.

To Nav. Air Sta. Pensacola, Fla.: Lieut. Junius L. Cotten, det. U.S.S. Utah; Lieut. Arthur B. Craig, det. U.S.S. Florida; Lieut. Rollin U. A. Failing, det. U.S.S. Arkansas; Lieut. Osborne B. Hardison, det. U.S.S. Mayflower; Lieut. Charles L. Hayden, det. R. Barracks Hampton Roads; Lieut. Stuart A. Maher, det. Nav. Academy, Annapolis; Ens. Morton B. Sterling, det. U.S.S. Maury; Ens. Barnett T. Talbott, det. U.S.S. Lamson; Ens. Jackson R. Tate, det. U.S.S. Langley; Ens. Benjamin P. Ward, det. Rec. Ship San Francisco.

To Aircraft Squadrons, Scouting Fleet: Lieut. j.g. Clarence H. Schildhauer, det. Nav. Air Sta. Pensacola, Fla.; Ensigns William H. Buracker, Charles A. Collins, Earle R. De Long, Austin K. Doyle, Douglas P. Johnson, Dixwell Ketcham, det. Nav. Air Sta. Pensacola, Fla.; Ens. Justin D. Hartford, det. R. Barracks, Hampton Roads, Va.

Lieut. Reuben Groesbeck (Med. C.), det. Nav. Air Sta. Pensacola, Fla.; to Rec. Ship, New York.

Lieut. George D. Thomson (Med. C.), det. Nav. Air Sta. Pensacola, to Rec. Ship, New York.

National Guard Aviation

Tennessee Air Service Starts Winter Program—The winter training program of the Air Service, Tennessee National Guard, has begun in earnest, and through the generosity of the Commercial Club of the city of Nashville, four large rooms in the Chamber of Commerce Building have been placed at their disposal for use every Wednesday night. With this as an impetus, one advanced class in motors, two primary classes, one radio class and one class in administration have been started. In addition, the officer personnel have a course of study to follow out. These classes will be augmented by practical work on Saturday and Sunday when weather will permit flying.

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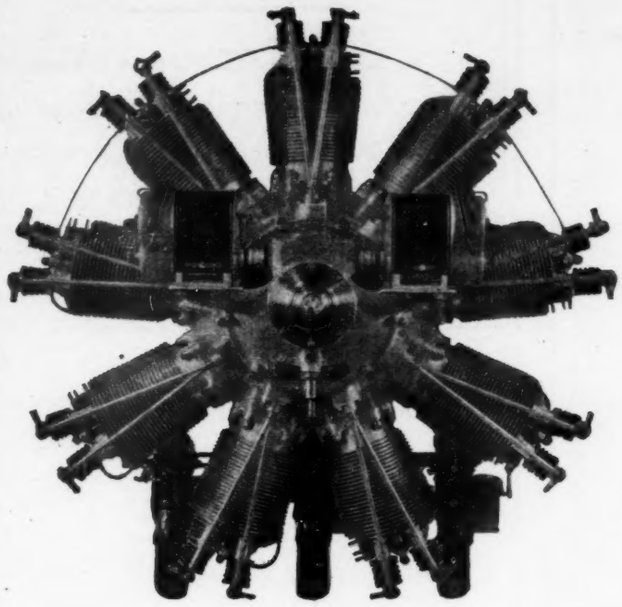

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INDEX TO ADVERTISERS

A

Aircraft Service Directory..... 86

C

Classified Adv..... 84
Curtiss Aeroplane & Motor Corp..... 63

D

Dayton Wright Co..... 62

J

Johnson Airplane & Supply Co..... 85

L

Lawrance Aero Engine Corp..... 83

M

Martin, The Glenn L., Co..... 88

N

Northrop, Marvin A..... 84

O

O'Brien, Clarence A..... 85

P

Packard Motor Car Co..... 87

T

Thomas-Morse Aircraft Corp..... 65

V

Vought, Chance, Corp..... 84

W

War Department..... 64, 74 - 75
Warner, Edward P..... 84
Wellington, Sears & Co..... 84
Where to Fly..... 82
Wright Aeronautical Corp..... 66

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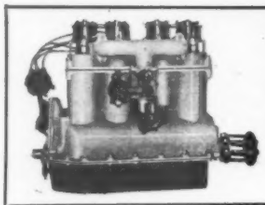

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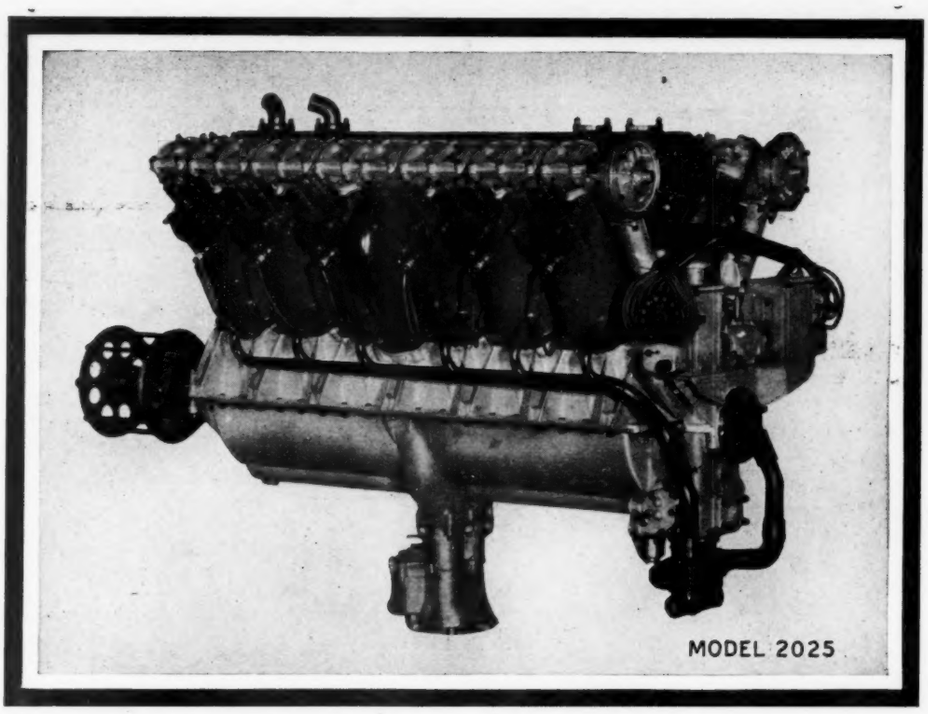

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